under 35 U.S.C. §103(a) as being unpatentable over Portable Translator in view of U.S. Patent No. 6,216,158 to Luo et al. (hereinafter "Luo"); and (iii) indicated that claims 11, 12, 14 and 15 would be allowable if rewritten in independent form. Applicants wish to thank the Examiner for his indication of allowable subject matter. In this response, Applicants traverse the §103(a) rejections for at least the reasons set forth below. Applicants respectfully request reconsideration of the present application in view of the following remarks.

The present invention relates generally to "methods and apparatus for contingent transfer and execution of spoken language interfaces" (Specification; page 2, lines 24-25). In a portable speech assistant (PSA), "a spoken language interface is defined in sets of user interface files. These are referred to as vocabularies files, prompt files, profiles and scripts depending on the role they play in structuring the interface" (Specification; page 3, lines 3-5). As used by the present invention, the term "spoken language interface" is intended to refer to the general act of speaking to a machine, listening to a machine, and/or interacting with a machine through utterances or audible expressions, and does not refer to a particular lingual type (e.g., English or Spanish).

An important aspect of the present invention is its ability to dynamically instantiate a new application and its spoken language interface (Specification; page 42, lines 5-7). It should be noted that the spoken language user interface of a corresponding application is a collection of operable features that allows a user to interact with the application. For example, user utterances may operate the features of the application, e.g., by supplying a reference to one or more events to be processed by the target application (Specification; page 3, lines 5-6). The term "event" is used by the present invention in a conventional sense in the context of event handling programs. Event handling is a feature of the application. These operable features, which are built into an application and are controlled at least in part by user utterances, are to be distinguished from data on which the application program acts.

Claims 1-5, 9 and 10 stand rejected under §103(a) as being unpatentable over Portable Translator in view of Das. With specific regard to independent claim 1, the Examiner correctly acknowledges that "Portable Translator does not explicitly teaches [sic], 'transferring the second user

interface data set from the device to the apparatus and loading the second user interface data set into the data structure of the apparatus.'" The Examiner contends, however, that "Das teaches transferring the second user interface data set from the device to the apparatus and loading the second user interface data set into the data structure of the apparatus (Fig. 1)" and that it would have been obvious to one of ordinary skill in the art to modify Portable Translator in view of Das to accomplish this. In this regard, Applicants respectfully disagree with the Examiner's contention.

The Portable Translator reference describes a "speech-driven portable translator" which when activated "displays a list of topics . . . After the user selects a category from these topics, he is presented with a list of the most common phrases or questions asked in that category" (Portable Translator; page 185). "the portable translator accepts speaker-independent, continuous-speech phrases, sentences, or questions, performing high-speed context switching between topics and screens. Problems of text-to-speech quality are avoided, as pre-recorded compressed sound bytes are played back in any language" (Portable Translator; page 186, paragraph 3; emphasis supplied). The Das reference, on the other hand, relates to a "real-time speech input-output link . . . consisting of a speech terminal 1 connected via a parallel data adapter 3 (IBM 2701) to a computer 2. . . . The speech link is used to develop various speech coding, recognition and verification algorithms" (Das; page 5051, paragraph 2 to page 5052, paragraph 1).

Applicants respectfully assert that claim 1 is patentable over the Portable Translator reference in view of the Das reference. Specifically, Portable Translator and Das, when considered either individually or in combination, fail to teach or remotely suggest, among other things, "adding a new application to the device" and "generating a second user interface data set in accordance with the new application," as set forth in claim 1 of the present application. With reference to Portable Translator, the Examiner contends that "a new application is another language loaded in the apparatus" and that the "PCMCIA card is generating a second user interface data set." Applicants respectfully disagree with this contention and submit that loading a dedicated language translation device with a different language, as taught by Portable Translator, cannot reasonably be analogized to adding a second application, since only a single application, namely, foreign language translation,

is performed by the Portable Translator device in response to a given utterance. Thus, Portable Translator fails to teach or suggest this required step. Moreover, the data stored in the PCMCIA cards in Portable Translator is merely phrase data, which is a subset of the same data set used by the translation application. The PCMCIA cards disclosed in Portable Translator serve only as additional storage for the various languages to be used by the portable translator device. Specifically, Portable Translator states that "the ability to pre-load a translator capable of doing many languages is constrained primarily by the availability of storage" (Portable Translator; page 187, paragraph 4).

As stated above, the data stored in the PCMCIA cards represents phrase data upon which the application acts, rather than user interface data which modifies the features of the application. Phrase data, as defined in the conventional sense, is data processed by a translation application and is to be distinguished from a "user interface data set," as recited in claim 1. No provision is taught or suggested by the Portable Translator reference for changing and/or adding a user interface data set. By contrast, in the present invention the user interface data set associated with each application represents data processed by the Dialog Manager to be directed to one of two (or more) applications running on the device of the present invention. Examples of such user interface data include on-screen buttons, button labels, layout of information fields, etc.

Applicants respectfully assert that because the translation device taught by Portable Translator is not capable of handling multiple applications for a particular utterance presented to the device, the Portable Translator reference fails to teach or suggest a "Dialog Manager" or similar mechanism "inherently coupled to the device," as the Examiner contends. In order to support this contention, dialog management functions must be present or at least significant to the operation of the device. The Portable Translator reference provides no such teaching or suggestion. As an example illustrating a difference between the prior art device and the present invention as claimed, consider the input phrase "What time is it?" uttered by a user. In the first case, the Portable Translator device repeats the phrase in a foreign language designated by the user. In contrast to Portable Translator, the methodologies of the present invention allow interfacing with a second application, such a clock application to output the actual time in the user's own or another designated

language. Thus, since the prior art device lacks a Dialog Manager to process user interface data, it can only translate the utterance, not act upon it.

With regard to the Examiner's contention that Das teaches "transferring the second user interface data set from the device to the apparatus and loading the second user interface data set into the data structure of the apparatus," Applicants respectfully submit that in the Speech Communication Link (Das; page 5051, FIG. 1), the "speech data" being transferred between the speech terminal and the Parallel Data Adapter (PDA) is merely digitally recorded sound and cannot be reasonably analogized to a "user interface data set," as required by the present invention. Thus, the Speech Communication Link disclosed by Das is nothing more than an apparatus for connecting a microphone and a speaker to a mainframe computer to support collection and replay of audio data. Furthermore, the user interface taught by Das is graphical and is presented on a separate CRT terminal. Specifically, Das states that "the investigator loads and initiates a speech program via the CRT terminal 4, and the speech data are inputted and/or outputted via the speech terminal 1" (Das; page 5052, paragraph 2). Consequently, Das fails to teach or suggest an interface "representing spoken language interface elements," as set forth in claim 1 of the present application.

Applicants also disagree with the Examiner's contention that Portable Translator discloses "a speech synthesizing engine for generating a synthesized speech output in response to text data," as required by claim 1, and submit that the Portable Translator reference in fact teaches away from this. Specifically, Portable Translator states that "[p]roblems of text-to-speech quality are avoided, as pre-recorded compressed sound bytes are played back in any language" (Portable Translator; page 186, paragraph 3). Thus, the Portable Translator reference fails to teach or suggest any mechanism for generating a synthesized speech output from text data.

For at least the foregoing reasons, Applicants respectfully submit that claim 1 is patentable over the Portable Translator reference and the Das reference, when considered either individually or in combination. Accordingly, favorable reconsideration and allowance of claim 1 is respectfully solicited.

With regard to claims 2-5, 9 and 10 which depend from claim 1, Applicants respectfully assert that these claims are also patentable over the prior art of record by virtue of their dependency from claim 1, which is believed to be patentable for at least the reasons set forth above. Moreover, these claims define additional patentable subject matter in their own right. For example, claim 3 further defines the invention as including the step of "removing a user interface data set from the data structure." Although Das teaches "a programmable read-only memory (ROM) 11, erasable by ultraviolet light (Page 5053, 1st Paragraph)," Applicants respectfully assert that this ROM is used to store the application program, which is distinguishable from user interface data. Furthermore, one skilled in the art would clearly recognize that the time required for erasing a ROM with ultraviolet light would make such memory impractical for use with the present invention. Therefore, since the Portable Translator reference and the Das reference, when considered either individually or in combination, fail to teach or suggest "removing a user interface data set from the data structure," as required by the present invention, Applicants submit that the above-noted claims are patentable over the cited prior art, not merely by virtue of their dependency from claim 1, but also in their own right. Accordingly, favorable reconsideration and allowance of claims 2-5, 9 and 10 is respectfully requested.

Claims 6-8, 13 and 16-19 stand rejected under §103(a) as being unpatentable over the Portable Translator reference in view of Luo. With specific regard to independent claim 6, and claim 19 which is of similar scope, the Examiner acknowledges that Portable Translator "does not teach 'the device requesting a language interface data set from the external network upon discovery of the external network; the external network transferring the language interface data set to the device; and loading the language interface data set into the data structure of the device for use by the user interfacing with the external network.'" However, the Examiner contends that "Luo teaches to load a data set in a palm size computer upon discovery of the external network (Abstract)." In this regard, Applicants respectfully disagree with the Examiner's contention.

Luo is directed to a system and method for controlling network devices using a palm-sized computer. Specifically, "[a] program on the palm sized computer is used to access a registry of

network services that may be available. The registry includes descriptions for various services. Each description includes at least a reference to program code that can be downloaded to the palm sized computer. Executing this program causes the palm sized computer to issue commands directly to the specific network services needed" (Luo; column 1, lines 37-44; emphasis supplied).

Applicants respectfully submit that independent claims 6 and 19 are patentable over the prior art of record. Specifically, Luo fails to teach or suggest "loading the spoken language interface data set into the data structure of the device," as required by claims 6 and 19 of the present application. Instead, Luo clearly states that program code is to be downloaded to the device, rather than interface data. Furthermore, in the present invention, a single software object, namely, the Dialog Manager, is executed. In contrast, Luo teaches that multiple separate downloaded programs are executed, which generally requires more bandwidth. Each of these downloaded program codes have integrated therein a user interface (Luo; Figure 2). Consequently, the palm sized computer does not include a dialog manager. Inasmuch as neither the Portable Translator reference nor the Luo reference teach or suggest loading a spoken language interface data set into a data structure of the device, Applicants respectfully submit that claims 6 and 19 of the present application is patentable over the prior art of record, when considered either individually or in combination. Accordingly, favorable reconsideration and allowance of these claims is respectfully solicited.

With regard to claims 7, 8 and 13, which depend from claim 6, Applicants respectfully assert that these claims are also patentable over the prior art of record by virtue of their dependency from claim 6, which is believed to be patentable for at least the reasons set forth above. Furthermore, these claims define additional patentable subject matter in their own right. Accordingly, favorable reconsideration and allowance of these claims is respectfully requested.

With regard to independent claim 16, Applicants respectfully submit that this claim is also patentable over the prior art of record. Specifically, Portable Translator fails to teach or suggest "a portable spoken language interface device." Contrary to the Examiner's contention, Figure 1 in the Portable Translator reference does not disclose a PDA. The Portable Translator is a fixed purpose appliance. As discussed above, even the PCMCIA card option in the Portable Translator only

provides a means for adding additional language, not as a means for changing the application or adding a new application to the device. Moreover, as previously stated, Luo fails to teach or suggest a portable spoken language interface device that can "load the spoken language interface data set into the data structure of the portable spoken language interface device for use by the user interfacing with the external network," as required by claim 16 of the present application. Instead, Luo teaches that program code can be downloaded to the palm sized computer (Luo; column 1, lines 39-40). As discussed above, program code is clearly distinguishable from the spoken language interface data set. For at least the foregoing reasons, Applicants respectfully submit that claim 16 is patentable over the Portable Translator reference and the Luo reference, when considered either individually or in combination. Accordingly, favorable reconsideration and allowance of claim 16 is respectfully solicited.

With regard to claims 17 and 18, which depend from claim 16, Applicants respectfully assert that these claims are also patentable over the prior art of record by virtue of their dependency from claim 16, which again is believed to be patentable for at least the reasons set forth above. Moreover, these claims define additional patentable subject matter in their own right. Accordingly, favorable consideration and allowance of claims 17 and 18 is respectfully requested.

For at least the foregoing reasons, Applicants believe that pending claims 1-19 are in condition for allowance and respectfully request withdrawal of the §103(a) rejections.

Respectfully submitted,

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